

REMARKS

On entry of this response, claims 1, 8-10, 33, 38, 39, 43 and 45-47 have been amended and claims 7, 13-32, 37, 42, 44 and 48 canceled without prejudice. Support for the amendment can be found through the instant application, for example, in the original claims. No new matter has been introduced.

Applicants specifically note that Applicants have canceled the above-identified claims to expedite the prosecution of the instant application. The cancellation of the claims must not be construed as an acquiescence to the rejections in the Office Action. Applicants reserve the right to pursue the canceled claims in a continuing application.

Now pending in the application are claims 1-6, 8-12, 33-36, 38-41, 43 and 45-47, of which claims 1 and 33 are independent.

I. Claim Rejections under 35 U.S.C. §112, Second Paragraph

Claim 1 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards the invention. See the Office Action, page 2.

Applicants have amended claim 1 to recite “(d) if new packet data traffic is generated after it is checked that there is no mobile station making use of the packet data service where the current call is in progress, gradually increasing power transmitted at each slot time for a period of time to a mobile station which generates the new packet data traffic which it takes a signal-to-interference ratio of the mobile station to be restored to an original value thereof when the power allocated to the mobile station making use of the line service is changed, wherein the increasing power is in a remaining power other than a power allocated to the line service.”

Amended claim 1 relates to gradually increasing power transmitted to a mobile station which generates new packet data traffic. The new packet data traffic is a newly-generated traffic after it is checked that there is no mobile station making use of packet data service. Support for

the amendment can be found, for example, at page 12, line 27 through page 13, line 7.

Applicants believe that the foregoing amendment addresses the Examiner's concern.

For the reasons set forth above, Applicants respectfully request that the Examiner reconsider and withdraw the above 35 U.S.C. §112, second paragraph rejection of claim 1.

II. Claim Rejection under 35 U.S.C. §103(a)

Claims 1-31 and 33-48 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,374,117 ("Denkert") in view of U.S. Patent No. 5,982,760 ("Chen"). See the Office Action, page 3.

Claim 32 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Denkert in view of Chen and U.S. Patent No. 7,209,724 ("Richards"). See Office Action, page 23.

Applicants respectfully traverse the rejection in view of the amended claims.

A. Claim 1

Applicants respectfully submit that Denkert and Chen, alone or in any reasonable combination, do not disclose or suggest "if new packet data traffic is generated after it is checked that there is no mobile station making use of the packet data service where the current call is in progress, gradually increasing power transmitted at each slot time for a period of time to a mobile station which generates the new packet data traffic which it takes a signal-to-interference ratio of the mobile station to be restored to an original value thereof when the power allocated to the mobile station making use of the line service is changed," as recited in amended claim 1.

Claim 1 has been amended to require increasing power transmitted to a mobile station which generates new packet data traffic gradually at each slot time for a period of time which it takes a signal-to-interference ratio of the mobile station to be restored to an original value thereof, when the power allocated to the mobile station making use of the line service is changed.

According to an exemplary embodiment described in the instant application, the power allocation apparatus allocates remaining power in a gradually increasing manner, rather than at once. Specifically, if new packet data traffic is generated after it is checked that there is no mobile station making use of the packet data service, the power transmitted to the mobile station increases gradually by each slot during a period of time which it takes a signal-to-noise ratio of the mobile station to be restored to its original state. In other words, the amount of the power transmitted in each slot has different values than the other slots, and has higher values by passing each slot. See the instant application, Figures 2a and 2b.

In the Office Action, the Examiner refers to Denkert, Column 2 and asserts that Denkert teaches the above feature of amended claim 1. See the Office Action, pages 4, 6 and 8. Applicants respectfully disagree.

In the portions identified by the Examiner, Denkert merely describes a method for power control used in conjunction with a carrier-to-interference (C/I) ratio to ramp transmit power up or down for each link. In other words, Denkert describes determining amounts of throughput power according to a variable C/I ratio, rather than determining whether the throughput power is transmitted in phases or at once. See Denkert, Figure 1 and Column 2. In Denkert, the amount of power throughput transmitted to each radio link changes with the C/I ratio of each radio link.

In contrast, *amended claim 1 requires gradually transmitting the throughput power of which the total amounts has been determined, rather than determining the total amounts of throughput power.* Since the power allocation is performed in such a way that the power transmitted to the mobile station making use of the packet data service is linearly or exponentially increased step by step, the instant application can minimize outage of the mobile station making use of the line service. See instant application, page 12, line 27 through page 13, line 5. Denkert is silent on whether the throughput power is transmitted to the radio link in phases or at once. Denkert does not teach or suggest that if new packet data traffic is generated after it is checked that there is no mobile station making use of the packet data service, the power transmitted to the mobile station increases gradually by each slot during a period of time which it takes a signal-to-noise ratio of the mobile station to be restored to its original state, as required by claim 1.

Applicants respectfully submit that Chen does not compensate for the deficiencies of Denkert. Chen describes a method for providing power control in a closed-loop communication system. See Chen, Abstract. Chen describes that a base station monitors the quality of a feedback link between the base station and a mobile station and changes the operation mode from a fast power control feedback mode to a slow power control feedback mode. See Chen, Abstract. Chen, however, does not disclose or suggest “if new packet data traffic is generated after it is checked that there is no mobile station making use of the packet data service where the current call is in progress, gradually increasing power transmitted at each slot time for a period of time to a mobile station which generates the new packet data traffic which it takes a signal-to-interference ratio of the mobile station to be restored to an original value thereof when the power allocated to the mobile station making use of the line service is changed,” as recited in claim 1.

For the reasons set forth above, Applicants respectfully submit that Denkert and Chen, alone or in any reasonable combination, do not disclose or suggest all of the limitations of claim 1. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the above 35 U.S.C. §103(a) rejection of claim 1.

B. Claims 2-6

Claims 2-6 depend from claim 1 and, as such, incorporate all of the features recited in claim 1. For at least the reasons set forth above in connection with claim 1, Applicants respectfully submit that Denkert and Chen, alone or in any reasonable combination, do not disclose or suggest all of the limitations of claims 2-6. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the above 35 U.S.C. §103(a) rejection of claims 2-6.

C. Claim 7

Claim 7 has been canceled. Therefore, the rejection of claim 7 is moot. As such, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. §103 rejection of claim 7.

D. Claims 8-12

Claims 8-12 depend from claim 1 and, as such, incorporate all of the features recited in claim 1. For at least the reasons set forth above in connection with claim 1, Applicants respectfully submit that Denkert and Chen, alone or in any reasonable combination, do not disclose or suggest all of the limitations of claims 8-12. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the above 35 U.S.C. §103(a) rejection of claims 8-12.

E. Claims 13-32

Claims 13-32 have been canceled. Therefore, the rejection of claims 13-32 is moot. As such, Applicants respectfully request that the Examiner reconsider and withdraw the 35 U.S.C. §103 rejection of claims 13-32.

F. Claim 33

Applicants respectfully submit that Denkert and Chen, alone or in any reasonable combination, do not disclose or suggest that “if new packet data traffic is generated after it is checked that there is no mobile station making use of the packet data service where the current call is in progress, the control section controls the power section to gradually increase power transmitted at each slot time for a period of time to a mobile station which generates the new packet data traffic which it takes a signal-to-interference ratio of the mobile station to be restored to an original value thereof when the power allocated to the mobile station making use of the line service is changed,” as recited in claim 33.

As discussed above, Denkert and Chen do not disclose or suggest “if new packet data traffic is generated after it is checked that there is no mobile station making use of the packet data service where the current call is in progress, gradually increasing power transmitted at each slot time for a period of time to a mobile station which generates the new packet data traffic which it takes a signal-to-interference ratio of the mobile station to be restored to an original value thereof when the power allocated to the mobile station making use of the line service is changed.”

For the reasons set forth above, Applicants respectfully submit that Denkert and Chen, alone or in any reasonable combination, do not disclose or suggest all of the limitations of claim 33. Therefore, Applicants respectfully request that the Examiner reconsider and withdraw the above 35 U.S.C. §103(a) rejection of claim 33.

G. Claims 34-36, 38-41, 43 and 45-47

Claims 34-36, 38-41, 43 and 45-47 depend from claim 33 and, as such, incorporate the features recited in claim 33. For at least the reasons set forth above in connection with claim 33, Applicants respectfully submit that Denkert and Chen, alone or in any reasonable combination, do not disclose or suggest all of the limitations of claims 34-36, 38-41, 43 and 45-47. Applicants respectfully request that the Examiner reconsider and withdraw the above 35 U.S.C. §103(a) rejection of claims 34-36, 38-41, 43 and 45-47.

H. Claims 37, 42, 44 and 48

Claims 37, 42, 44 and 48 have been canceled. Therefore, the rejection of claims 37, 42, 44 and 48 is moot. As such, Applicants respectfully request that the Examiner reconsider and withdraw the above 35 U.S.C. §103 rejection of claims 37, 42, 44 and 48.

III. Conclusion

In view of the above comments, Applicants believe that the pending application is in condition for allowance and urges the Examiner to pass the claims to allowance. Should the Examiner feel that a teleconference would expedite the prosecution of this application, the Examiner is urged to contact the Applicant's attorney at (617) 227-7400.

Please charge any shortage or credit any overpayment of fees to our Deposit Account No. 12-0080, under Order No. HLQ-006RCE. In the event that a petition for an extension of time is required to be submitted herewith, and the requisite petition does not accompany this response, the undersigned hereby petitions under 37 C.F.R. §1.136(a) for an extension of time for as many months as are required to render this submission timely. Any fee due is authorized to be charged to the aforementioned Deposit Account.

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Respectfully submitted,

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